

510, 107
Rec'd PCT/PTO 04 OCT 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 October 2003 (16.10.2003)

PCT

(10) International Publication Number
WO 03/085135 A1

- (51) International Patent Classification⁷: C12Q 1/68 (74) Agent: ALBIHNS STOCKHOLM AB; P.O. Box 5581, S-114 85 Stockholm (SE).
- (21) International Application Number: PCT/SE03/00547 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 4 April 2003 (04.04.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0201024-7 4 April 2002 (04.04.2002) SE
60/369,599 4 April 2002 (04.04.2002) US
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): PY-ROSEQUENCING AB [SE/SE]; Vallongatan 1, S-752 28 Uppsala (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): OLSSON, Charlotta [SE/SE]; Ymergatan 24C, S-753 27 Uppsala (SE).
TOOKE, Nigel [SE/SE]; Olof Thunmans väg 14, S-741 44 Knivsta (SE).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: NEW METHOD

(57) **Abstract:** The present invention relates to a method for determining the sequence of a nucleic acid molecule comprising the steps of: a) providing a single-stranded form of said nucleic acid molecule; b) hybridizing a primer to said single stranded form of said nucleic acid molecule to form a template/primer complex; c) enzymatically extending the primer by the addition of a polymerase and a mixture of at least one nucleotide and at least one labeled derivative of the at least one nucleotide, wherein the at least one labeled derivative of the at least one nucleotide comprises a label linked to the nucleotide via a cleavable link and wherein the amount of labeled derivative of the at least one nucleotide in said mixture of the at least one nucleotide and the labeled derivative of the at least one nucleotide is within the range of 1-50 mole-%, 1-40 mole-%, 1-30 mole-%, or 1-20 mole-%. d) determining the type of nucleotide added to the primer; and e) repeating steps c) to d) at least once.

BEST AVAILABLE COPY

WO 03/085135 A1